

REMARKS

Status of the Claims

Claims 1-20 and 36 are pending. Claims 11, 15, and 19 are amended. Claims 21-34 are canceled herein without prejudice or disclaimer. No new matter is added.

Specification and Claim Amendments

Applicant has amended the specification and claims 11, 15, and 19 to correct minor, typographical errors. For example, the specification and claim 11 are amended to correct the symbol for cesium (Cs). No new matter is added.

Interview Summary

On April 2, 2010, Applicant, Applicant's representatives, and Examiner Perreira conducted an interview.

During the interview, the parties discussed the anticipation rejection over Glajch (U.S. Patent No. 6,455,024). Applicant and Applicant's representatives explained that Glajch contemplates incorporating nitrogen into glass by melting phosphate in ammonia at high temperatures (e.g., 700°C, which is higher than the melting temperature of the cited glass).¹ As such, nitrogen is distributed uniformly throughout the glass when formed from the melted liquid. On the other hand, the claimed invention involves nitriding the surface of solid glass matrices (e.g., microspheres)² near annealing or softening temperatures of the particular glass, which are substantially below the melting temperature of the particular glass.³ For example, the specification teaches nitriding the surface of glass XLG0101 at 518°C, which is substantially below the melting temperature of XLG0101 glass.⁴ As such, the solid matrices have a nitrogen-rich surface layer, the surface layer being of greater durability than the solid matrices. Accordingly, because Glajch suggests incorporating nitrogen into a melted glass rather than nitriding the surface of a solid glass, Glajch does not teach or suggest the

¹ See Reidmeyer et al., J. Non-Crystalline Solids 85 (1986) 186-203, which is incorporated by reference in Glajch. See Glajch, col. 5, lines 40-44. A copy of Reidmeyer was provided to the Examiner during the interview.

² See, e.g., Specification, Figure 3 and ¶ [049].

³ See *id.* at Figure 2A and ¶ [095].

⁴ See *id.* at ¶¶ [054] and [098].

claimed implant materials having a nitrogen-rich surface layer, the surface layer being of greater durability than the base glass matrix.

Examiner Perreira (i) agreed that Glajch does not teach the claimed implant materials;⁵ and (ii) withdrew the indefiniteness rejection.⁶

Applicant and Applicant's representatives greatly appreciate and thank Examiner Perreira for her time and consideration during the interview.⁷

Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 12 and 13 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite.⁸

As discussed above, this rejection was withdrawn during the interview.

Rejections Under 35 U.S.C. § 102(b)

Claims 1-4, 11, 15-20, and 36 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Glajch.

The claims are directed to resorbable implant materials comprising, *inter alia*, a nitrogen-rich surface layer formed on the resorbable base glass matrix. Glajch does not teach or suggest such resorbable implant materials. Indeed, during the interview, Examiner Perreira agreed that Glajch does not teach a nitrogen-rich surface layer formed on the resorbable base glass matrix, the surface layer being of greater durability than the base glass matrix, i.e., Glajch does not anticipate any of the claims.⁹ Accordingly, this rejection is moot.

⁵ See Interview Summary (“...the reference of Glajch et al. is overcome... Glajch et al. involves the dissipation of nitrogen throughout the resulting glass while the glass of the instant claims contains a surface layer of nitrogen.”)

⁶ See *id.* (“The rejection under 112 is overcome by applicant’s argument.”).

⁷ In a follow-up telephonic interview on April 5, 2010, Examiner Perreira agreed to enter the Information Disclosure Statement and PTO/SB/08, filed concurrently with this response.

⁸ See Office Action, page 2.

⁹ See Interview Summary (“...the reference of Glajch et al. is overcome... Glajch et al. involves the dissipation of nitrogen throughout the resulting glass while the glass of the instant claims contains a surface layer of nitrogen.”)

Rejections Under 35 U.S.C. § 103

Claims 1-5, 8, 10-16, 18-20, and 36 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Glajch in view of Day et al. (U.S. Patent No. 5,011,797, hereinafter “Day”).

As discussed above, Glajch does not teach resorbable implant materials comprising, *inter alia*, a nitrogen-rich surface layer formed on the resorbable base glass matrix, the surface layer being of greater durability than the base glass matrix. Day does not remedy the deficiencies of Glajch. Indeed, Day is silent regarding the use of nitrogen, let alone forming a nitrogen-rich layer on the surface of a resorbable base glass matrix. Accordingly, because the combination of Glajch and Day does not teach or suggest each and every element of claim 1 or 36, the combination of Glajch and Day does not render obvious any of the claims.

In view of the foregoing, Applicants respectfully request withdrawal of this rejection.

Claims 1-5, 8-11, 13-16, 18-20, and 36 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Glajch in view of Gilchrist et al. (U.S. Patent No. 6,143,318, hereinafter “Gilchrist”).

As discussed above, Glajch does not teach resorbable implant materials comprising, *inter alia*, a nitrogen-rich surface layer formed on the resorbable base glass matrix, the surface layer being of greater durability than the base glass matrix. Gilchrist does not remedy the deficiencies of Glajch. Indeed, Gilchrist is silent regarding the use of nitrogen, let alone forming a nitrogen-rich layer on the surface of a resorbable base glass matrix. Accordingly, because the combination of Glajch and Gilchrist does not teach or suggest each and every element of claim 1 or 36, the combination of Glajch and Gilchrist does not render obvious any of the claims.

In view of the foregoing, Applicants respectfully request withdrawal of this rejection.

Claims 1-4, 6, 7, 11-13, 15-20, and 36 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Glajch in view of Wong et al. (U.S. Pub. No. 2004/0131543, hereinafter “Wong”).

As discussed above, Glajch does not teach resorbable implant materials comprising, *inter alia*, a nitrogen-rich surface layer formed on the resorbable base glass matrix, the surface layer being of greater durability than the base glass matrix. Wong does not remedy the deficiencies of Glajch. Indeed, Wong is silent regarding the use of nitrogen, let alone forming a nitrogen-rich layer on the surface of a resorbable base glass matrix. Accordingly, because the combination of Glajch and

Wong does not teach or suggest each and every element of claim 1 or 36, the combination of Glajch and Wong does not render obvious any of the claims.

In view of the foregoing, Applicants respectfully request withdrawal of this rejection.

CONCLUSION

In view of the above remarks, early notification of a favorable consideration is respectfully requested. An indication of allowance of all claims is respectfully requested.

This response is being filed within the three-month time period set forth in the Office Action (April 4th being Sunday). Accordingly, no fees are due. Should any fees be due to enter and consider this response or keep the application pending, however, the USPTO is authorized to charge these fees to **Deposit Account No. 50-0206**.

If the Examiner has any questions relating to this response, or the application in general, she is respectfully requested to contact the undersigned so that prosecution of this application may be expedited.

Respectfully submitted,

HUNTON & WILLIAMS LLP

Dated: April 5, 2010

By:



Robert M. Schulman
Registration No. 31,196

Alexander H. Spiegler
Registration No. 56,625

HUNTON & WILLIAMS LLP
Intellectual Property Department
1900 K Street, N.W., Suite 1200
Washington, DC 20006-1109
(202) 955-1500 (telephone)
(202) 955-1899 (direct telephone)
(202) 778-2201 (facsimile)